

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 2, line 18 as follows:

The mobile 10 has the secret key Ki in ~~it's~~ its SIM card. The secret key Ki is stored on subscription by the operator and is not visible for the users of the mobile or for any other party for that matter. It is identical to the secret key Ki stored in the Authentication Center-~~50~~. The secret key Ki is applied together with the random number RAND into a predetermined algorithm called A3 to produce a signed response SIZES. The mobile 10 then transmits a message containing SIZES to the MSC/VLR 40, which compares it with the SIZES received from the AuC-~~50~~. If the comparison is ~~successful~~ successful, the mobile 10 is authenticated and allowed to access the network. At the same time with calculating the SIZES, the mobile applies RAND and Ki to another predetermined algorithm called A8 to produce the ciphering key Kc1. If the authentication was ~~successful~~ successful and the network should so decide, all subsequent transmissions with the mobile 10 over the air interface are ciphered.